

**STATE OF MAINE**

**DEPARTMENT OF MARINE RESOURCES**

<b>IN THE MATTER OF THE APPLICATION OF</b>	<b>)</b>	
<b>ISLAND AQUACULTURE COMPANY FOR AN</b>	<b>)</b>	<b>FINDINGS OF FACT,</b>
<b>AQUACULTURE LEASE LOCATED OFF BLACK</b>	<b>)</b>	<b>CONCLUSIONS OF LAW</b>
<b>ISLAND, FRENCHBORO, HANCOCK COUNTY, MAINE</b>	<b>)</b>	<b>AND DECISION</b>

On September 6, 1996, Island Aquaculture Company, of Swans Island, Maine applied for an aquaculture lease totaling 15 acres of coastal waters of the State of Maine in Black Island, Frenchboro, Hancock County, Maine. The applicant requested the lease for a term of ten years for the purpose of cultivating Atlantic salmon, Salmo salar, Atlantic cod, Gadus morhua, haddock, Melanogrammus aeglefinus, Atlantic halibut, Hippoglossus hippoglossus, and blue mussels, Mytilus edulis using pen culture techniques.

Approval of aquaculture leases is governed by 12 M.R.S.A. §6072. This statute provides that the Commissioner of the Department of Marine Resources (DMR) may grant a lease if he determines that the project will not unreasonably interfere with the ingress and egress of riparian owners, navigation, fishing or other uses of the area; the ability of the site and surrounding areas to support ecologically significant flora and fauna; or the use or enjoyment within 1,000 feet of municipally, state or federally owned beaches, parks, or docking facilities. The Commissioner must also determine that the applicant has demonstrated that there is an available source of organisms to be cultured for the lease site.

A public hearing on this application was held on September 4, 1998 at 9:30 a.m., in Frenchboro.

Intervenor status was granted to Matthew Doering, Elizabeth Doering MacKenty, Margot Doering and Caroline Doering, co-riparian owners of the northern half of Black Island. Their testimony was consolidated and presented by Matthew Doering ("Doering Intervenors"). Intervenor status was granted to Laurie Haskell deGrazia, a co-riparian owner of the southern half of Black Island ("Intervenor deGrazia"). She did not attend the hearing. Edward and Iolanda Ponte Memorial Trust, a riparian owner, represented by Iolanda Ponte, also applied for intervenor status. Her request for intervenor status was received prior to the hearing and therefore is part of the administrative record. However her completed

application on the Department's form was not received prior to the hearing and she was also unable to attend the hearing. Because Ms. Ponte is a riparian and did apply for intervenor status with specific details about her concerns and interest in the application that satisfied the Department's criteria, she is granted intervenor status for the purpose of providing written comments during the proposed decision comment period provided to intervenors and applicants. Ms. Ponte is also an intervenor for purposes of any appeal of final agency action. The record will hereafter refer to her as "Intervenor Ponte".

**Evidence Introduced Concerning the Nature  
and Impact of the Proposed Lease**

The manager and president, Myron "Sonny" Sprague, of Island Aquaculture Company (IAC), located on Swans Island, presented an overview of the application. An environmental consultant, Christopher Heinig, provided testimony on the history of IAC, a geographic description of the proposed lease, development information, results of the environmental baseline survey and the applicant's position on how the decision criteria would be met. Exhibit 1.

The manager testified that the proposed lease of 15.0 acres, 450' by 1450', would be located off the western shore of Black Island, Frenchboro. The manager testified that the species to be raised would include Atlantic salmon, Atlantic cod, haddock, Atlantic halibut and blue mussels. The cod and haddock rearing would be an extension of the applicant's ongoing hatchery and rearing research of those species. The operation would be serviced daily from Bass Harbor, Mount Desert Island, or from Burnt Coat Harbor, Swans Island.

He testified that the first year of development would include the deployment of up to 10 pens. In the second year, up to four additional pens would eventually be added to distribute the growing fish. No additional salmon smolts would be added until after the second year.

He stated that the fish would be fed by hand and with small feed blowers during the first year. A centralized feed system on a barge-type platform would be placed on the northeast end of the proposed site. The manager testified that the size of the proposed barge would be reduced from the proposed 60' by 90' by 24' height dimensions in the application to a maximum size of 30' by 60' with a 10 to 12' maximum height.

Almost all of the personnel working at the existing leases, and those who would assist with the proposed site, have had experience raising fish since 1993. Initially, six new persons would be added for the proposed operation.

The manager testified that they have never used medication and, in his opinion, IAC's existing sites have worked well because they practice good fish husbandry. The same practices would be applied at the proposed site. He stated that the proposed site was selected for the greater depth and exposure to full oceanic water which provides moderating temperatures and good flushing from oceanic ground swells.

The manager also explained that, as part of the centralized feed system for state of the art husbandry techniques, each pen would be fitted with an underwater video camera. The camera system would allow greater feeding efficiency to improve growth rates and reduce the amount of uneaten feed.

The manager testified that there was a limited amount of fishing on the proposed site. He stated that lobster fishing and diving for scallops in the open areas of the lease would be acceptable. Dragging would not be allowed. He stated that, in his experience, the lobster population around the lease located at Swans Island, as indicated by the lobster catch and diver observations, had increased compared to a previously sparse population. He provided a copy of a University of Maine study that supported his observations regarding the positive effect of fish pens on local lobster populations. Exhibit 3.

The manager stated that, regarding navigation issues, he would comply with all U.S. Coast Guard requirements for navigation aids such as buoys and lighting.

The environmental consultant began his testimony with a brief history of IAC's interest in the proposed site. The applicant had previously held a lease off Long Island, Frenchboro. That site was found to be unfeasible for raising salmon and was terminated. The proposed site would replace that previously held lease. The company currently operates two leases, a processing plant and an experimental hatchery for cod and haddock at Swans Island. The consultant presented a chart with the proposed lease location indicated off the northwest shore of Black Island and east of Placentia Island. Exhibit 4. A chart with the lease boundaries and geographic coordinates was also provided. Exhibit 5.

The consultant testified about the proposed site development and operations. A maximum of 18 steel, 24m<sup>2</sup> x 10m deep fish pens would be deployed. Standard moorings of 6000 to 8,000 pound assemblies would be used. All moorings and structures would be contained within the proposed lease boundaries. Deployment of the pens would be phased in, beginning at the north end of the proposed lease. Alternate arrangements of the pens were described. Exhibits 6 and 7. At maximum production, with two year classes of salmon, there would be approximately 30,000 fish per pen. There would be about 540,000 fish anticipated to be harvested annually at an average weight of 12 pounds each at maximum production. He stated that fish would be fed at a rate of 1% of body weight per day. The maximum feeding rate, during the first year, would be approximately 13 tons per day and increased to an estimated 36 tons per day at maximum production.

The consultant testified on the baseline survey requirements. The proposed lease has an average depth of 75 feet at mean low water (mlw). The mean current speed, taken at the surface, ranged from 2.5 to 25.4 cm/sec over an 11 hour sampling period, or almost one tidal cycle. The mean current speed at the bottom ranged from 1.9 to 9.9 cm/sec. Exhibit 8. The water column chemistry profiles were indicative of oceanic exposure. The water column is well-mixed with elevated salinities, moderated temperatures and dissolved oxygen levels near or exceeding 100% saturation at low water. The sediments were heterogeneous across the site and consisted primarily of sand, gravel, stones and shell fragments. He explained that, given the coarseness of the sediments, the current velocities should have been higher. He stated that the coarse sediments are, in his opinion, present due primarily to storm events. During the diver survey on August 30, 1996, no flora was observed. The consultant testified that the fauna and infauna species observed and sampled were diverse and consistent with the type of sediment habitat. This type of habitat is dominated by polychaete worms, mollusks and small crustaceans. Exhibit 9.

The consultant summarized how the application meets the decision criteria. He testified that the applicant does not require the use of any riparian property and the proposed lease would not impede access to riparian land. The applicant estimated there is 184 feet from the proposed northeast corner and 210 feet from the southeast corner to the high water mark on the shore of Black Island. Exhibit 22.

The consultant testified that the proposed site is outside of a marked navigational channel. Navigational use is primarily that of lobster fishing vessels. Commercial lobster fishing is the most common fishery there, although mostly along the shoreline of the island. Based on the diver observations, it was presumed there would also be scallop fishing in the area. The nearest existing aquaculture leases are located off Swans Island approximately 5.9 miles to the southwest and are held by the applicant. The consultant stated that there are no public-owned beaches, parks, public landings, or docks within 1,000 feet of the proposed lease. The fish stocks would be obtained from Maine certified hatcheries, the salmon principally from hatcheries of Atlantic Salmon of Maine, and the cod and haddock from their own hatchery facility on Swans Island. Regarding the environmental monitoring, the consultant stated that, based on the results since 1992 at the applicant's other leases, the data indicates that IAC has conducted its operations responsibly and he would expect the same to occur at the proposed site.

Responses to specific concerns regarding the proposed lease on the local marine mammal population were presented by the consultant. The information was written by a University of Maine professor and marine mammal scientist familiar with the area. Exhibit 10. A written copy of the consultant's testimony was entered. Exhibit 11.

The manager answered several questions from the Doering Intervenors' attorney and the general public. The attorney asked the manager about his financial status and if the applicant's financial information would be updated from 1996. The manager provided updated information through June 30, 1998 on Section 9, Financial Capability, page 24 of 28 in the application. The attorney asked the manager if fish would be processed at the lease site. The manager testified that fish would be processed at the IAC processing plant on Swans Island or at the Atlantic Salmon of Maine processing plant in Bucks Harbor. He stated that he would accept a condition that would prohibit processing of fish on the lease site if it were granted.

The manager was asked to provide information on the aquaculture of fish species requested other than salmon. The manager testified that there have been no guidelines for rearing of those species, however he would follow any regulations that are developed and required. He testified that he

would be willing to accept a condition that would limit the use of the proposed lease to only those experimentally reared fish obtained from the northwestern Atlantic and reared at the Swans Island hatchery.

The manager was asked why the proposed site was selected instead of increasing capacity at the applicant's existing lease sites. He explained that the site in Toothacker Cove is too cold for an increase in capacity as the fish have to be moved annually before the high winter risk of superchill occurs. The proposed site would have more moderate temperatures compared to that site and therefore a lower risk of superchill.

The Doering Intervenors asked the manager if he was familiar with an article on sea lice treatments. Exhibit 13. He stated that he was not familiar with the article.

The manager was asked if any underwater acoustic devices (ADD) could be turned off for users such as student dive classes and scallop divers. The manager stated that he would accommodate anyone's request to turn those devices off when needed.

The manager was asked if the operation would interfere with the navigation of the Frenchboro ferry. The manager explained that the proposed site is outside of the channel and, therefore, should not interfere with the ferry service. The distance from the shore to the northwest corner, or the outermost corner from Black Island was estimated to be about 635 feet.

A scallop dragger asked if the site could be marked in such a way to assist navigation while dragging in the area. The manager testified that he would be willing to work through the U.S. Coast Guard to set a navigational marker off the southwest corner to aid the draggers in that area.

A marine biologist, employed by the Department, testified about the statutorily required site review that he conducted October 26, 1997. The Department report included the following criteria: a scuba diver survey of the local flora and fauna and bottom composition; vertical profiles of the water column which include temperature, salinity, dissolved oxygen and pH, and depths; collection of plankton; current measurements; proximity measurements of the proposed site to shore and to other leases; plus observations and documentation of local fisheries. Exhibit 2.

He testified that, during the dive, an underwater video was taken. He observed a gravel bottom with sand and silt. The most abundant organisms he observed were burrowing anemones and the northern star fish. Commonly found species included fan worms and sea cucumbers. Species that were rare or occasionally observed included lobsters, scallops, rock crabs and sea urchins. The water depths and current measurements taken by the biologist were similar to those of the applicant. The biologist testified that he observed 10 to 12 lobster trap buoys within the proposed lease boundaries on October 26, 1997 and stated that that count was similar to the consultant's observation of trap buoys on August 30, 1996. The nearest navigational aid was green can "IP" approximately 3,900 feet north of the northeast corner of the proposed lease. In his interview with the Frenchboro harbormaster, the harbormaster indicated that the proposed lease would not pose a navigation conflict.

The harbormaster provided testimony regarding concerns about the ferry service to Frenchboro. He stated that he presumed the ferry service would review the application. In his opinion, the area should not interfere with navigation by the ferry or other vessels if properly marked.

A riparian landowner and intervenor in opposition to the application, Matthew Doering, representing his three sisters and himself, provided testimony opposing the lease. Elizabeth Doering MacKenty also provided testimony. The Doering Intervenors testified that their primary concerns were interference of access to their property and aesthetics. In their opinion, the pens pose a general navigation hazard. They stated that the area off the southeast corner of the proposed lease was one of only two feasible access points to their property. They explained that the proposed lease would interfere with their ability to moor a 30 foot vessel on a 160 foot mooring in that area due to the proximity of the lease to the shore. This particular mooring area also represents a storm anchorage. The Doering Intervenors stated that in 28 years the storm anchorage area had been used twice. They testified that this mooring area would be the access point for a future building construction planned along that shore. They explained that they intend to build on a site which would overlook the proposed lease. They testified that they object to the negative impact on their view of the proposed lease from the future building site and a picnic area. The Doering Intervenors also expressed concern that the use of

acoustic deterrent devices (ADDs) would cause the dolphins and seals to leave the area and this would diminish the riparians' enjoyment observing them from their property.

Testimony was provided by the Doering Intervenors on the deed to their land and the conservation easement held by the National Park Service at Acadia National Park. It was their opinion that the conservation easement, and their willingness to allow public use of their land, should qualify their property to be considered as if it were public property for its scenic view.

In a letter to Department the Acadia National Park Service (ANPS) described its understanding of the conservation easement on Black Island, Frenchboro, as being to conserve the island characteristics as viewed from offshore. The ANPS concerns focused on the scope and specifically the size of the originally proposed 60' by 90' by 24' barge. It did not express opposition to an aquaculture lease at this specific site.

The Doering Intervenors entered several exhibits: a copy of the conservation easement, Exhibit 14; comments on the application by a consultant from St. Andrews, New Brunswick, Exhibit 15; a study on potential impacts of ADDs from British Columbia, Exhibit 16; a letter dated January 29, 1975 on the value of the conservation easement, Exhibit 17; a letter dated February 1, 1988 from Outward Bound, Exhibit 18; and information obtained from the Internet on ADD impacts in British Columbia, Exhibit 21.

Several persons from Frenchboro testified about concerns that the location of the pens would pose a navigational problem for the Frenchboro ferry service. The applicants explained that, from the western shore of Black Island to the mooring balls on the westernmost side of the pen structures, the distance would be approximately 370 feet. He stated that the proposed lease is not in a marked navigational channel. The applicants testified that all U.S. Coast Guard navigation requirements would be met.

The Swans Island hatchery manager provided testimony. She explained that the salmon smolt are reared in fresh water and that fish from those hatcheries require fish health testing before the salmon smolts can be moved to marine water. The cod and haddock are raised in the local seawater at the Swans Island hatchery. She stated that their research would contribute to the development of applicable marine fish health regulations which do not yet exist. Her point was to make sure that it was



understood that the hatchery is a marine hatchery dependent upon clean seawater similar to concerns about the environment at their proposed lease site.

The manager testified that, if the lease is granted, he would provide a safe and secure anchorage for the Doering Intervenors in the area they refer to as Rum Cove.

Intervenor deGrazia, a riparian, wrote in opposition to the granting of a lease. In her opinion, the proposed lease would interfere with the storm anchorage area north of their property and navigation particularly for recreational purposes.

Intervenor Ponte, a riparian, presented several written concerns and stated her opposition to the granting of a lease. In her opinion, the proposed lease would interfere with shore access and the quality of seawater available for a future desalination system. She also contended that it would reduce the value of her property and expressed her opposition to the proposed 90 by 40 foot barge and the proposed operation for aesthetic reasons.

### **Findings of Fact**

The proposed lease boundary is located approximately 200 feet from the high water mark on the western shore of Black Island. The water depths range from approximately 27 feet and 40 feet respectively at the southeast and northeast corners then dropping off to approximately 82 feet at the northwest and southwest corners with an estimated mean depth across the site of 75 feet. According to the harbormaster, no moorings are issued within the proposed lease boundaries. Intervenor Ponte expressed concern that interference with the cove/beach area of her property would be unacceptable. Testimony and evidence provided by the applicant indicated that it did not seek nor need to use any lands or shore on Black Island. Testimony by the Doering Intervenors indicated the proposed lease would interfere their access to a mooring area close to the southeast corner. The applicant's manager offered to provide a mooring in the vicinity of the southeast corner. The Doering Intervenors testified that this would be acceptable to them.

Based on the testimony and evidence, I find that the lease will not unreasonably interfere with the ingress and egress of the riparian owners given the willingness of the applicant to provide a mooring near the southwest corner for the Doering intervenor, the availability of room in which to navigate or

place moorings between the boundary and shore, a distance of 200 feet, and the amount of room between the proposed structure's moorings and shore, a distance of 300 feet.

Local residents voiced concerns that the proposed lease would pose a navigation impediment to the Frenchboro ferry service. According to the evidence and general testimony, the primary navigation of the area is commercial lobster fishing vessels and a limited amount of scallop draggers. The proposed site is not located in a buoyed navigation channel. Testimony by the harbormaster indicated that the proposed lease would not pose any interference to navigation by any vessels as long as the site was properly marked. The applicant will be required by law to comply with all navigational marking requirements of the U.S. Coast Guard. These requirements will take in to consideration the concerns of the local ferry service and commercial fishing vessels. Based on the testimony and evidence, I find that the lease will not unreasonably interfere with navigation in the area.

General testimony and evidence indicated that the proposed lease would not interfere with the primary fishery of the area, lobster fishing. The manager stated that lobster fishing would be allowed in the open areas of the lease. According to the evidence and testimony, there is some scallop dragging in the vicinity of the proposed lease. 12 M.R.S.A. §6957 prohibits dragging within 300 feet of the surface structures of fish pens if the area is marked in accordance with that statute. The manager testified that any dragging within the lease would be prohibited, however he stated willingness to provide a navigational buoy or aid to be used as a siting reference for draggers traversing the area from the north, in accordance with U.S. Coast Guard requirements. The manager testified that scallop divers would be allowed on the open area of the lease, however, not beneath the fish pens. According to the evidence, the nearest existing aquaculture leases are over 5.5 miles to the southwest at Swans Island.

Based on the testimony and evidence, the willingness of the applicant to allow lobster fishing and scallop diving on the open areas of the lease and to provide a navigation aid off the southwest corner for draggers, I find that the proposed lease will not unreasonably interfere with fishing in the area.

The president of the environmental consulting firm, who has extensive experience in environmental finfish aquaculture activities, testified that the proposed lease activities would not have a negative impact on ecologically significant flora and fauna. The site has adequate water depth and other

characteristics to support the applicant's proposed activities. The manager testified that no processing of fish would take place on the proposed lease.

Intervenor Ponte wrote that the proposed operation would interfere with seawater quality for use in a desalination system she claims she intends to build in the future. No specific plans or time frames were provided about this installation or any specifications that would demonstrate that the location of the proposed operation would interfere with such a system.

The Doering Intervenors expressed concern about the source(s) of the experimental finfish, Atlantic cod, haddock and Atlantic halibut. The manager testified that only those marine finfish obtained from the IAC hatchery on Swans Island would be reared at the proposed lease. Those fish would continue to come from the areas that they have been obtained from to-date: the northwest Atlantic, from Rhode Island to Newfoundland.

The Doering Intervenors also expressed concerns regarding the negative impact of the proposed lease activities on marine mammals. Part of the Department biologist's site review and application process includes notification of those agencies with the authority to regulate activities affecting marine mammals. No concerns were expressed by the regulating agencies, the Department of Inland Fisheries and Wildlife or the National Marine Fisheries Service, on this application.

Based on the testimony and evidence that ADD's do not pose a threat to marine life, coupled with the Department's experience monitoring the use of these devices at multiple sites throughout the State, I find that the proposed activities will not unreasonably interfere with the ability of the site and surrounding areas to support ecologically significant flora and fauna.

Testimony and evidence provided by the applicant indicate the salmon stocks will come from certified Maine hatcheries such as Atlantic Salmon of Maine, located in Oquossoc and Solon, Maine. The experimental finfish species Atlantic cod, haddock and Atlantic halibut would be obtained from the IAC hatchery located at Swans Island. The applicant is required by statute and regulation to comply with all applicable fish health testing and transfer requirements. At the request of the Doering Intervenors, the applicant's manager agreed to use only stocks of the experimental fish reared at the IAC hatchery on Swans Island. Seed blue mussel stocks would be obtained from the wild as allowed by Department

regulations. Based on the testimony and evidence, I find that there is an available source of Atlantic salmon, Atlantic cod, haddock, Atlantic halibut, and blue mussels.

According to the evidence, including maps, charts, and testimony the lease is not located within 1,000 feet of any publicly owned land. The Doering Intervenors acknowledged that they as private citizens own private property and that the existence of an easement exists does not convert private property into public property. The Doering Intervenors and Intervenor Ponte oppose the proposed lease based on their conservation easements with the ANPS. The Department also recognizes that the ANPS does not view the location of the proposed lease as direct interference with public lands or the easement. The lease is located entirely in subtidal waters with no use of the shore or lands on Black Island. Based on the above, I find that the proposed lease will not unreasonably interfere with the public use or enjoyment and that the site is not located within 1,000 feet of any municipally, state or federally owned beaches, parks, or docking facilities.

### **Conclusions of Law**

Based on the above findings, I conclude that:

1. The aquaculture activities proposed for this site will not unreasonably interfere with the ingress and egress of any riparian owner;
2. The aquaculture activities proposed for this site will not unreasonably interfere with navigation;
3. The aquaculture lease activities proposed for this site will not unreasonably interfere with fishing or other uses of the area, taking into consideration the number and density of aquaculture leases in the area;
4. The aquaculture lease activities proposed for this site will not unreasonably interfere with the ability of the lease site and surrounding areas to support existing ecologically significant flora and fauna;
5. The applicant has demonstrated that there is an available source of Atlantic salmon, Atlantic cod, haddock, Atlantic halibut, and blue mussels to be cultured for the lease site; and
6. The aquaculture lease activities proposed for this site will not unreasonably interfere with public use or enjoyment within 1,000 feet of municipally, state or federally owned beaches, parks, or docking facilities.

The evidence in the record supports a finding that the proposed aquaculture activities meet the requirements for the granting of an aquaculture lease set forth in 12 M.R.S.A. §6072 (7-A).



## **Decision**

Based on the foregoing, the Commissioner grants the requested lease of 15.0 acres to the applicant for a period of ten years, from the date of this decision, for the purposes of cultivating Atlantic salmon, Salmo salar, Atlantic cod, Gadus morhua, haddock, Melanogrammus aeglefinus, Atlantic halibut, Hippoglossus hippoglossus, and blue mussels, Mytilus edulis, utilizing pen culture techniques as described in the application and the hearing record. The applicant shall pay the State of Maine rent in the amount of \$50.00 per acre per year. The applicant shall post a bond or establish an escrow account in the amount of \$5,000.00, conditioned upon its performance of the obligations contained in the aquaculture lease documents and all applicable statutes and regulations.

## **Conditions to be Imposed on Lease**

The Commissioner may establish conditions that govern the use of the lease area and impose limitations on aquaculture activities. Conditions are designed to encourage the greatest multiple, compatible uses of the lease area, while preserving the exclusive rights of the lessee to the extent necessary to carry out the purposes of the aquaculture law.

The following conditions are placed on this lease:

1. lobster fishing and scallop diving is allowed in the open areas of the lease site;
2. fish processing at the site is prohibited; processing does not include the cutting of the gill and bleeding of the fish;
3. Atlantic cod, haddock, and Atlantic halibut raised at the site shall originate from northwest Atlantic stock and be obtained from the IAC hatchery on Swans Island;
4. a storm anchorage mooring must be placed within the southwest corner of the lease, or a mooring in compliance with the Harbormasters Act if outside the lease boundaries, for the Doering Intervenors;
5. the work barge dimensions shall not exceed 30 x 60 feet and 10 - 12 feet in height; and
6. the lease area shall be marked in accordance with U.S. Coast Guard and Department of Marine Resources requirements.

The Commissioner may commence revocation procedures if he determines that substantial aquaculture has not been conducted within the preceding year, or that the lease activities are

substantially injurious to marine organisms. If any of the conditions or requirements imposed in this decision, in the lease, or in the law are not being observed, the Commissioner may revoke the aquaculture lease.

**Dated:**

**George D. Lapointe (Commissioner)**  
**Department of Marine Resources**